

SASKATCHEWAN RESEARCH COUNCIL 2002/2003 ANNUAL REPORT

Smart Science Solutions



Table of Contents

Letter of Transmittal	1
Message from the Chair	2
Message from the President	3
SRC's Board of Directors	4
Organizational Chart	4
SRC – Introduction	5
Agriculture and Biotechnology	6
Energy	10
Environment	14
Manufacturing and Value-Added Processing	18
Mining and Minerals	22
SRC's Mission: A Report Card	25
SRC's Commitment to the Community	26
Corporate Governance	28
Financial Statements	29
Saskatchewan Research Council Core Values . . .	Back Cover

SRC's Mission

SRC's mission is to help the people of Saskatchewan strengthen the economy with quality jobs and a secure environment. We do it through research, development, and the transfer of innovative scientific and technological solutions, applications and services.

SRC's Vision

SRC will be an internationally recognized leader in the development and implementation of relevant science and technology. We are committed to use this strength to enable our customers to thrive in the world economy, and to benefit Saskatchewan.

SRC's Purpose

SRC creates wealth through the responsible application of science and technology to assist Saskatchewan industry to be globally competitive.

We create wealth through

- i) increasing production (of goods and services)
- ii) adding value (to goods and services)
- iii) improving productivity
- iv) creating and commercializing new products and services

The Research Council Act

Section 21 (2) directs that:

Every report shall be laid before the Legislative Assembly in accordance with *The Tabling of Documents Act, 1991*.



Letter of Transmittal

June, 2003

Letter of Transmittal

To the Honourable Lynda Haverstock
Lieutenant Governor of Saskatchewan

May it please your Honour:

The undersigned presents herewith, for your consideration, the report of the Saskatchewan Research Council for the year ended March 31, 2003.

Respectfully submitted,



Eric Cline
Minister Responsible for SRC



Letter of Transmittal

June, 2003

Letter of Transmittal

To the Honourable Lynda Haverstock
Lieutenant Governor of Saskatchewan

May it please your Honour:

The undersigned presents herewith, for your consideration, the report of the Saskatchewan Research Council for the year ended March 31, 2003.

Respectfully submitted,



Eric Cline
Minister Responsible for SRC



Message from the Chair



This was a successful year for the Saskatchewan Research Council. We emerged from our strategic reorganization with a clear focus on the future.

By structuring our products and services to match the economic engines of growth and prosperity in Saskatchewan, SRC is in the ideal position to provide Smart Science Solutions to virtually any business in the province.

The Board of Directors is proud of the work accomplished by our dedicated team of research professionals who are recognized around the world for their creativity, diligence and ingenuity.

SRC provides cost-effective solutions for customers in agriculture and biotechnology, energy and environmental management, manufacturing and value-added processing as well as mining and minerals.

Our success can only be measured by the achievements and improvements of our clients and partners. This year's annual report shares the stories of some of these customers and shows how they have benefited from doing business with SRC.

On behalf of the Board of Directors, I would like to congratulate each of SRC's employees for their excellent work and personal commitment to helping make Saskatchewan a great place to live and work.

I would also like to extend thanks to our customers and partners for the opportunity to be part of your success.

We look forward to growing our relationships and working together toward an exciting and prosperous future for everyone in Saskatchewan!

Keith Hanson
Chair, Board of Directors



Message from the President

At SRC we are proud of the role we continue to play in helping the organizations that drive economic growth in our province by meeting their challenges so they can emerge as more vibrant businesses.

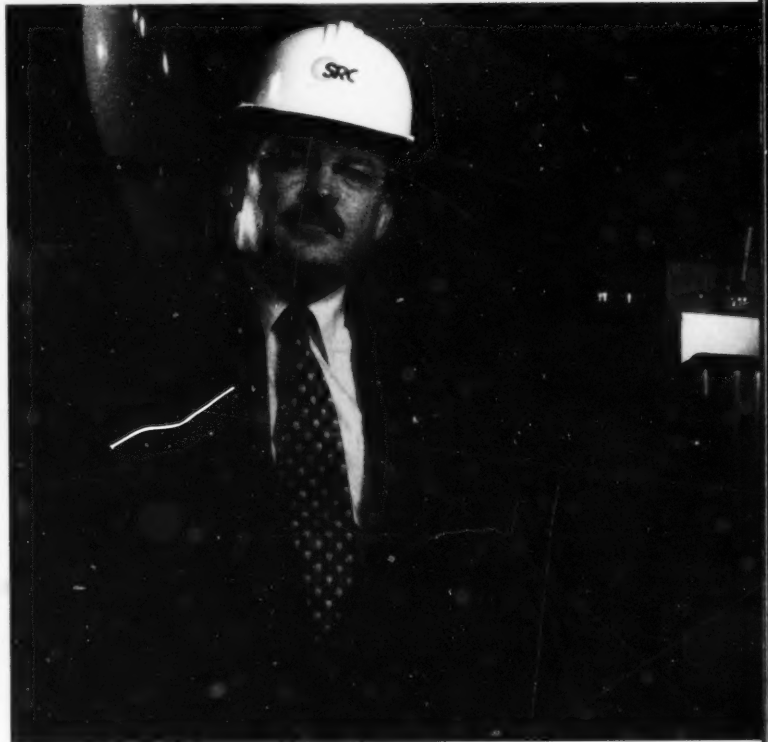
This past year we all worked very hard at organizing our businesses and positioning ourselves to deliver on our mandate. Our business units have continued to adjust and align so we can most effectively support the key industrial sectors contributing to Saskatchewan's economy.

While continuing to champion the cause of working safely and effectively managing our operations within the 2002-03 Operational/Financial Plan, we brought in key strategic plans, including a 5-year Strategic Business Plan, Strategic Risk Management Plan, and a Strategic Communications/Branding Plan.

These provide the broad framework we need to move forward, and although there remains much work to be done, we have taken important steps toward implementing these plans, and we are well positioned for growth.

As Saskatchewan's lead provider of applied R&D and technology commercialization, we are positioned to fulfill the role in the innovation chain between the knowledge creators (universities and fundamental research labs) and technology users and implementers in the industrial and commercial sectors. Each customer is unique, for us, and so we tap our skills, knowledge and expertise to solve the problems on an individual basis.

This year we developed and launched an economic impact assessment process, which provides a basis for estimating the impact of our work. In 2002-03 we worked with and helped over 1,000 Saskatchewan customers and had a demonstrable impact on the



provincial economy. Our customers tell us that we created and/or saved jobs in the province and that we contributed to their successes, thereby creating economic growth in Saskatchewan. They also tell us that we contributed to other non-financial but positive "quality of life" impacts, in areas such as air and water quality, and the management of greenhouse gas emissions.

I applaud and thank everyone at SRC for their hard work and dedication. I also thank our partners and customers for their support and commitment to mutual success.

Laurier Schramm
President and Chief Executive Officer



Board of Directors



From left to right: Peta Bonham-Smith, Craig Zawada, Amy Veawab, Laurier Schramm, Keith Hanson, Mike Monea, Patsy Gilchrist, Doug Kelln, Larry Cooper, Missing: John Bennett

SRC Organizational Chart as of April 1, 2003



SRC – Introduction

Providing *Smart Science Solutions* is what the Saskatchewan Research Council is all about.

Since 1947, SRC has helped fuel Saskatchewan's engines of economic growth by solving problems and identifying new business opportunities.

SRC has been on the leading edge of research and development as the provincial economy shifted gears from agriculture to enterprises involving oil and gas, manufacturing and mining as well as environmental management.

Applying knowledge gained in SRC's labs can also be applied in the daily lives of families and businesses.

Success has been achieved because the SRC focus is on meeting the customer's needs each and every time.

Our customers are the ones who drive SRC's success. In some projects, our role is to cultivate new and better ways to develop Saskatchewan's resources and get them to market. Yet, in others we contribute by identifying a market for Saskatchewan innovation.

Some projects are collaborative efforts coordinated by SRC involving knowledge creators such as universities and fundamental research labs with active industry participants. Other projects are conducted completely by a team of SRC people.

Sometimes, SRC takes leading-edge knowledge developed right here in Saskatchewan and sells it to the world or SRC brings the best knowledge the world has to offer and applies it to unique Saskatchewan situations.

In each and every case, SRC's focus is on gaining maximum benefit for the people of Saskatchewan, creating opportunities and prosperity for both now and the future.

Smart science solutions are as unique and as varied as SRC's customer base in these key areas of activity:

- Agriculture and Biotechnology
- Energy
- Environmental Management
- Manufacturing and Value-Added Processing
- Mining and Minerals
- Community

The 2002-2003 SRC annual report features our clients' successes and our role as a provider of smart science solutions.

SRC is laying a solid foundation on which this province's economy can continue to build, one customer at a time.

Providing *Smart Science Solutions* is what the Saskatchewan Research Council is all about.

Since 1947, SRC has helped fuel Saskatchewan's engines of economic growth by solving problems and identifying new business opportunities.

SRC has been on the leading edge of research and development as the provincial economy shifted gears from agriculture to enterprises involving oil and gas, manufacturing and mining as well as environmental management.

Applying knowledge gained in SRC's labs can also be applied in the daily lives of families and businesses.

Success has been achieved because the SRC focus is on meeting the customer's needs each and every time.

Our customers are the ones who drive SRC's success. In some projects, our role is to cultivate new and better ways to develop Saskatchewan's resources and get them to market. Yet, in others we contribute by identifying a market for Saskatchewan innovation.

Some projects are collaborative efforts coordinated by SRC involving knowledge creators such as universities and fundamental research labs with active industry participants. Other projects are conducted completely by a team of SRC people.

Sometimes, SRC takes leading-edge knowledge developed right here in Saskatchewan and sells it to the world or SRC brings the best knowledge the world has to offer and applies it to unique Saskatchewan situations.

In each and every case, SRC's focus is on gaining maximum benefit for the people of Saskatchewan, creating opportunities and prosperity for both now and the future.

Smart science solutions are as unique and as varied as SRC's customer base in these key areas of activity:

- Agriculture and Biotechnology
- Energy
- Environmental Management
- Manufacturing and Value-Added Processing
- Mining and Minerals
- Community

The 2002-2003 SRC annual report features our clients' successes and our role as a provider of smart science solutions.

SRC is laying a solid foundation on which this province's economy can continue to build, one customer at a time.



"The people at SRC know their stuff and they have the equipment and facilities required to support their intellectual abilities."

- Greg Holloway, a biochemical engineer, Philom Bios.

Agriculture and Biotechnology

PHILOM BIOS TURNS TO SRC TO GROW INOCULANTS

Philom Bios, a Saskatoon company that develops and markets inoculants to help plants access nutrients more easily, has discovered several reasons for doing business with SRC over the years.

"SRC has equipment that we do not have," explained Greg Holloway, a biochemical engineer at Philom Bios. "The capital cost of some of the equipment is high, which means it makes more sense for us to contract the research with SRC than to buy the equipment ourselves."

Holloway points to the mass spectrometer in the Fermentation Pilot Plant as an example. This instrument measures the gases emitted during a fermentation.

"The oxygen used, and the carbon dioxide produced, by the microorganisms in the fermenter provide excellent information about the growth of the organisms," Holloway said.

"When we run a fermentation in the SRC facility, we obtain important additional information about the growth of the microorganisms because SRC staff are able to provide us with off-gas data and analysis."

Inoculants are live microorganisms that give plants access to nutrients. Inoculants are an essential and profitable crop input for Western Canadian farmers.

Philom Bios' **TagTeam**[®] line of inoculants are dual organism products that help pea, lentil, chickpea, dry bean and alfalfa crops fix nitrogen and make less available forms of phosphate available to these crops. Philom Bios also produces a single organism inoculant to solubilize phosphate and a single

organism inoculant to help pea and lentil crops fix nitrogen.

"SRC's staff bring an incredible amount of technical expertise to a project," Holloway said, noting that a detailed plan was in place before a contract was signed. The project plan benefited from the contributions of half a dozen SRC scientists.

"Not to sound like a broken record, but the people at SRC know their stuff and they have the equipment and facilities required to support their intellectual abilities. Everything needed to get a research project done is in place. You don't have to spend the time and money to set up your own research program when SRC already has what is required in place."

ANIMAL AND PLANT GENES TESTED BY SRC

Companies who want to test for economically important genes that can dramatically improve meat production in animals or the characteristics of transgenic plants are turning to the scientists at the Saskatchewan Research Council for help.

Genetic testing at SRC can also confirm parentage of animals and identify varieties to support plant breeder's rights.

SRC's agriculture and biotechnology team has the expertise and equipment to solve customer's problems cost effectively and credibly.

Pure breed cattle, and alternative livestock producers from across the country routinely come to SRC's Bova-Can Labs to confirm parentage, examine relationships (siblings), test for genetically inherited diseases, and to aid them in breeding for value-added production traits such as milk production and beef marbling.



SRC provides genetic testing services for virtually all breeds of cattle and specialty livestock ranging from alpacas to reindeer.

SRC's GenServe facility provides similar services for a variety of other organisms including companion animals, plants, insects and microbes, and is involved in testing for the presence of known genetically engineered traits, genetic mapping and the development of genetic markers to assist in breeding.

BIONICHE STRETCHES R & D DOLLARS

Bioniche Life Sciences Inc. is among the growing list of progressive companies that has tapped into SRC's knowledge pool.

"By working with SRC, Bioniche was effectively able to increase our research and development team at different times during the year," explained Dragan Rogan, a veterinarian who is Vice-President of Bioniche Animal Health.

"SRC's staff was dedicated to meeting our needs and communicated results quickly so we could make the appropriate decisions. This allowed us to quickly and efficiently advance our new product development program."

Bioniche is a fully integrated, Canadian biopharmaceutical company engaged in the research, development, production and commercialization of proprietary technologies for the human and animal health markets worldwide.

Rogan said the expertise that SRC was able to provide Bioniche ensured that the quality and thoroughness of the work received was of very high standard and could be relied upon.

"Working with SRC can be a cost effective way to accelerate research and development programs by providing high caliber people and facilities," said the Vice-President of research and development for the Ontario-based company.

CATTLE PARENTAGE TRACKED BY SRC

Meanwhile on the livestock side of the agriculture ledger, SRC has been doing business on a fee-for-service basis with the eight major cattle breed associations through Bova-Can Laboratories, a joint venture with these associations, since 1987.

"We rely on SRC's expertise and state-of-the-art facility to help us protect the integrity of the herdbook and to maintain our prominence in the global market place," says Glenn Cherry, Registrar of the 11,500-member Canadian Holstein Association.

The history of parentage testing goes back more than 50 years as a critical service for the Canadian livestock industry. The value of an animal is determined by its characteristics and performance, and by the characteristics and performance of its ancestors and offspring.

Many countries will not accept export stock cattle without a verification of parentage.

As a result, high-quality testing and precise record keeping are crucial for giving breeders a competitive edge in the market place as well as for ensuring that the quality of a herd continually improves.

SRC's Bova-Can Laboratories provides this service and has become a recognized leader for blood-typing and DNA testing of a broad range of livestock species.



OTHER 2002-2003 HIGHLIGHTS

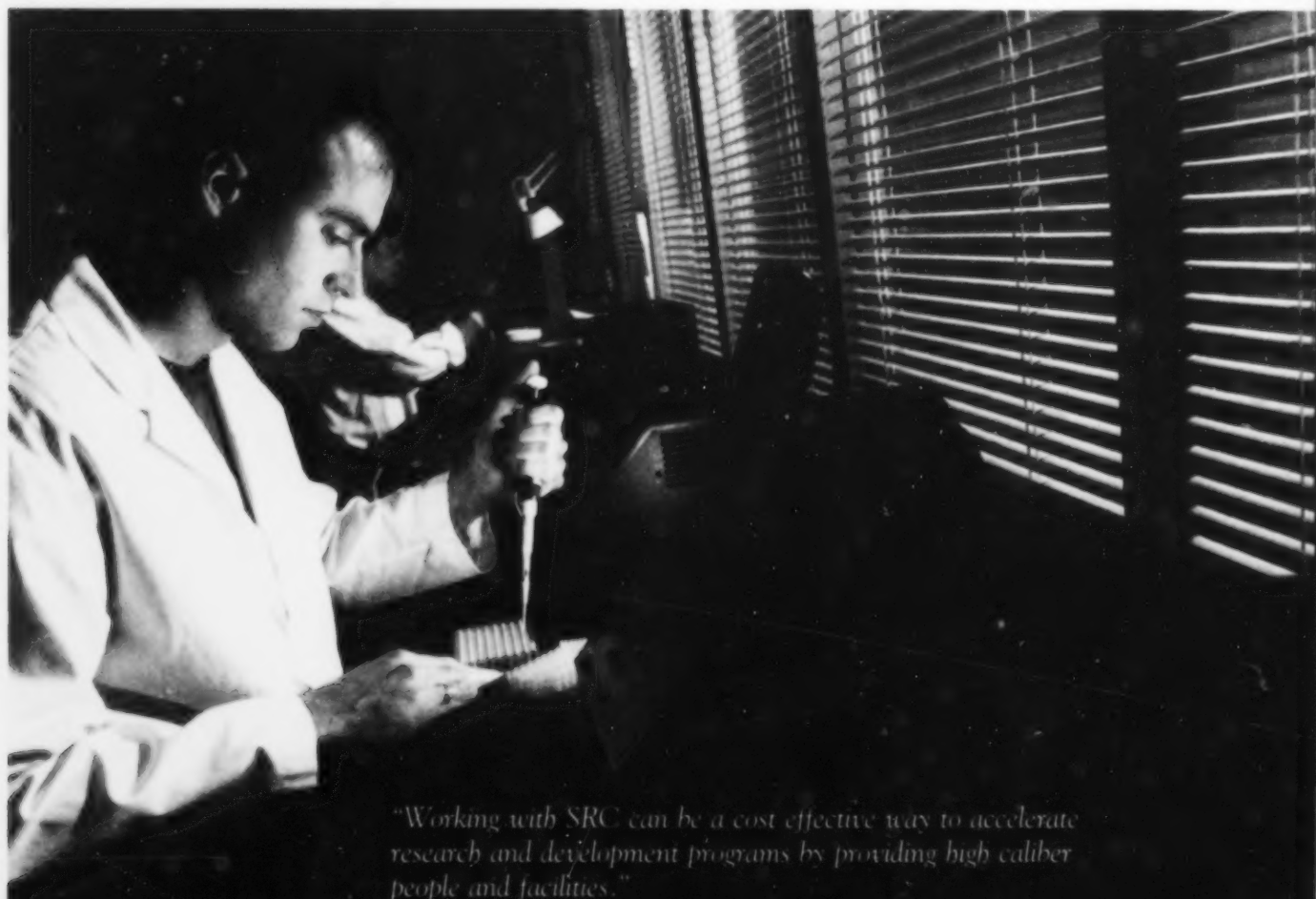
DIVERSE DNA

Marketing opportunities continue to expand for the scientists and technicians within the agriculture and biotechnology sector at the Saskatchewan Research Council. For example, SRC is developing a business relationship based on DNA testing with groups as diverse as the American Belgian Blue Breeders' Association and specialty livestock breeds such as alpacas and reindeer.

GENSERVE LABORATORIES

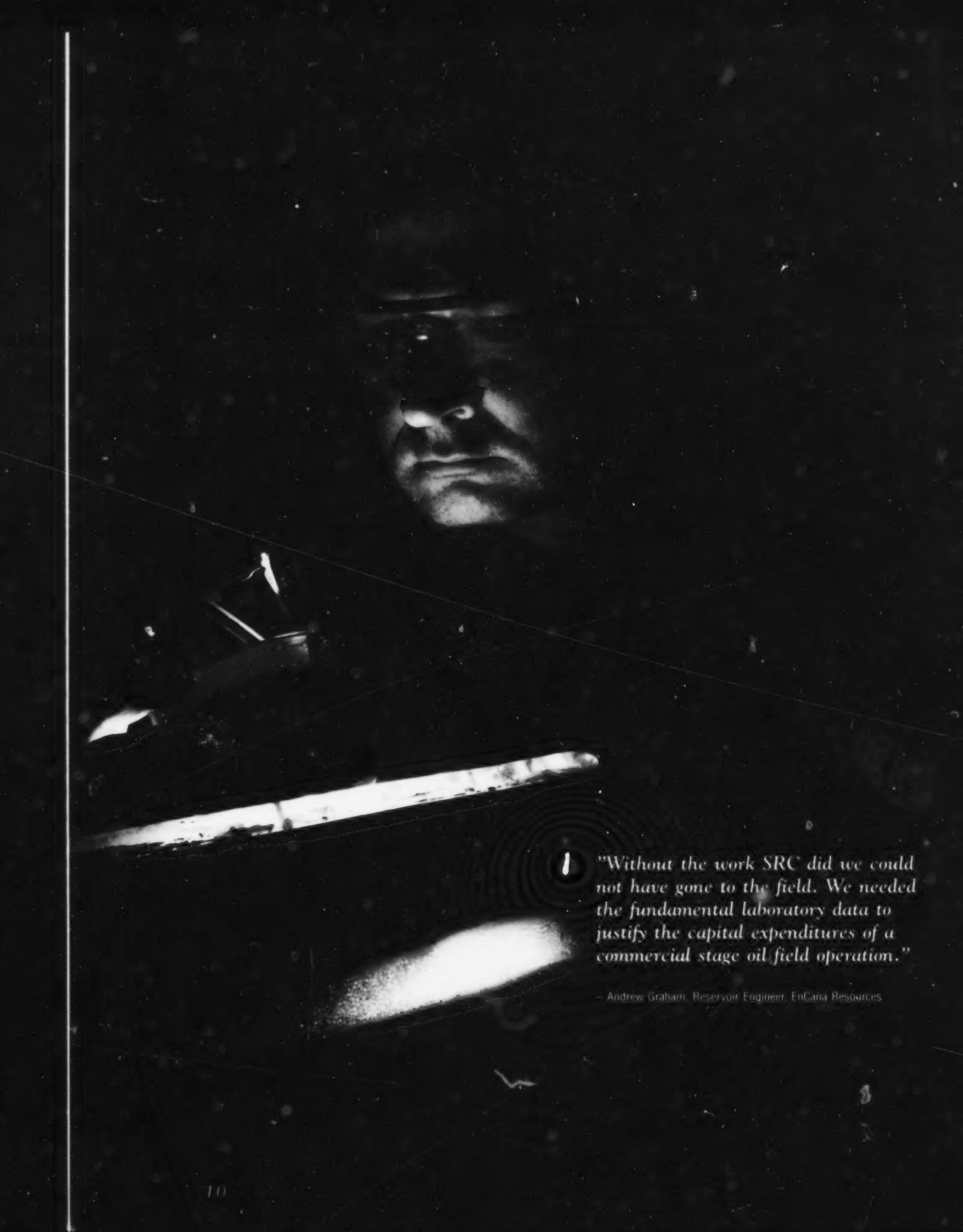
GenServe Labs is currently looking at new

directions to best support the agricultural biotechnology industry through DNA testing. GenServe has helped Bioriginal, the world's leading supplier of essential fatty acid products, differentiate itself in the market place. "Our credibility is enhanced because of the use of science and technology to support our marketing claims," said Jerome Konecni, Vice-President of corporate development for the company that makes its products primarily from flax. Among GenServe's tool chest of services is the ability to test for the presence of genetically modified organisms or GMOs, a requirement for compliance with new mandatory labeling laws in Europe and Japan.



"Working with SRC can be a cost effective way to accelerate research and development programs by providing high caliber people and facilities."

— Dragan Rogan, Vice-President of Research and Development, Bioniche Animal Health



"Without the work SRC did we could not have gone to the field. We needed the fundamental laboratory data to justify the capital expenditures of a commercial stage oil field operation."

- Andrew Graham, Reservoir Engineer, EnCana Resources

Energy

ENERGY RESEARCH BENEFITS EVERYONE

Homeowners, small businesses and companies producing oil and natural gas are benefiting from work done by the Saskatchewan Research Council.

SRC is active in addressing problems in virtually every type of oil and gas field across the province (light, medium and heavy) to a virtual office dedicated to finding ways to reduce greenhouse gas emissions as well as cutting energy bills.

Why?

Activity in Saskatchewan's oil and gas fields now has a bigger impact on the provincial economy than activity in wheat fields.

In addition to helping companies develop and apply methods of extracting more oil and natural gas by using quicker and more cost effective methods, SRC has an additional mandate for coordinating energy conservation activities in the province.

New and often innovative methods are being used by the Saskatchewan Research Council to help oil companies solve production problems. Most of the energy projects involve multiple clients over a number of years. Each company invests some money, rather than absorbing the full cost, and is able to make use of all of the results.

PRODUCING RESULTS IN LABS AND IN THE FIELD

Energy research is being conducted not only in a laboratory, but literally in the field where the solution is needed.

In the past, companies often had to wait days

for test results to be returned from labs before proceeding with production, explains Doug Soveran, SRC's Manager of Production and Processing.

"We found a practical method of ensuring Nexen could test and review the results at its Plover Lake field site," he said, referring to a project located in west central Saskatchewan between Kerrobert and Luseland with Nexen, the company formerly called Wascana Energy.

The Plover Lake project involves an enhanced oil recovery process known as Vapex or VAPor EXtraction.

SRC is providing the project operators with real-time measurements from the site 24 hours a day, seven days a week.

"SRC is one of our most important R & D providers," explains Rich Kerr, Chief Engineer with Nexen. "We are convinced we are getting a multiple benefit-to-cost ratio by sponsoring research at SRC."

MONITORING GREENHOUSE GAS STORAGE IN WEYBURN FIELD

A massive field-testing project involves monitoring the storage of carbon dioxide in the EnCana oil field in southwestern Saskatchewan.

The Weyburn project is being conducted under the auspices of the International Energy Agency Greenhouse Gas Research and Development program and is the first of its kind in the world.

"The advantages of doing this type of project in the Weyburn oil field are the fact there is 50 years of



data from the oil pool, a very cooperative private sector partner, and we were able to capture baseline data before carbon dioxide injection started," said Bruce Stewart, Director of the CANMET Energy Technology Centre and a member of the IEA Weyburn management team.

There are two benefits from the IEA Weyburn project.

Scientists will monitor and track the movement of a greenhouse gas – carbon dioxide – injected into an oil field. That same carbon dioxide will help extend the production life of the oil field.

The 180-square-kilometre Weyburn oil field has produced 335 million barrels since being discovered in 1954. The carbon dioxide research project may add another 25 years of life to the field, producing at least 130 million barrels of incremental oil through miscible and near-miscible displacement.

"Without the work SRC did we could not have gone to the field," says Andrew Graham, Reservoir Engineer, EnCana Resources. "We needed the fundamental laboratory data to justify the capital expenditures of a commercial stage oil field operation."

MULTI-CLIENT PROJECT IMPROVES OIL PROCESSING

SRC also researches improvements in processing the oil. Several companies are collaborating with SRC to apply an old processing technology in a new way. Successful lab testing means the experiment will progress to field tests.

"The coalescer column is basically a pipe stuffed with packing," explained SRC research scientist Gay Renouf. "We believe this is a simple,

inexpensive and environmentally friendly technology to remove water from produced oil."

Small droplets of water along with particles of sand and clay are often mixed within the oil found in the ground. Before the oil can be shipped to refineries through pipelines, the crude is purified at centralized locations called batteries.

The conventional method of purifying the crude oil has been unchanged for more than 80 years.

Improving this method can generate dual benefits for the oil company.

Battery operators usually burn natural gas to generate the energy required to heat the oil in the pressurized vessel. It's been estimated that a typical heavy oil battery requires the same amount of natural gas in the purifying process as it would take to heat 930 average-size Saskatchewan homes in a year. In addition, the annual operating cost for a heavy oil battery is \$1 million.

So, discovering a less-costly way to purify the crude oil will benefit the environment by not requiring as much natural gas to be burned as well as the bottom line for the oil producers.

The theory behind the SRC coalescer column experiment is simple. Several types of packing have been tested including coal and fiberglass but the greatest success in lab tests has been with pre-treated rock.

Each rock granule is coated with water. So, during operation, water droplets in the oil adhere to the water film on the surface of the rocks and coalesce to form even larger droplets for easier removal.

The coalescer column could have a huge economic



impact in Saskatchewan where one third of the reserves are heavy oil and, as a result, are more costly to treat than light or medium oil.

OTHER 2002-2003 HIGHLIGHTS: ENERGY CONSERVATION OFFICE CREATED

Cutting energy bills for Saskatchewan residents and reducing greenhouse gas emissions are among the main tasks of the Office of Energy Conservation.

The mandate of the virtual office is to co-ordinate energy conservation activities within Saskatchewan by providing technical and managerial assistance on energy conservation matters within the provincial government and to the public.

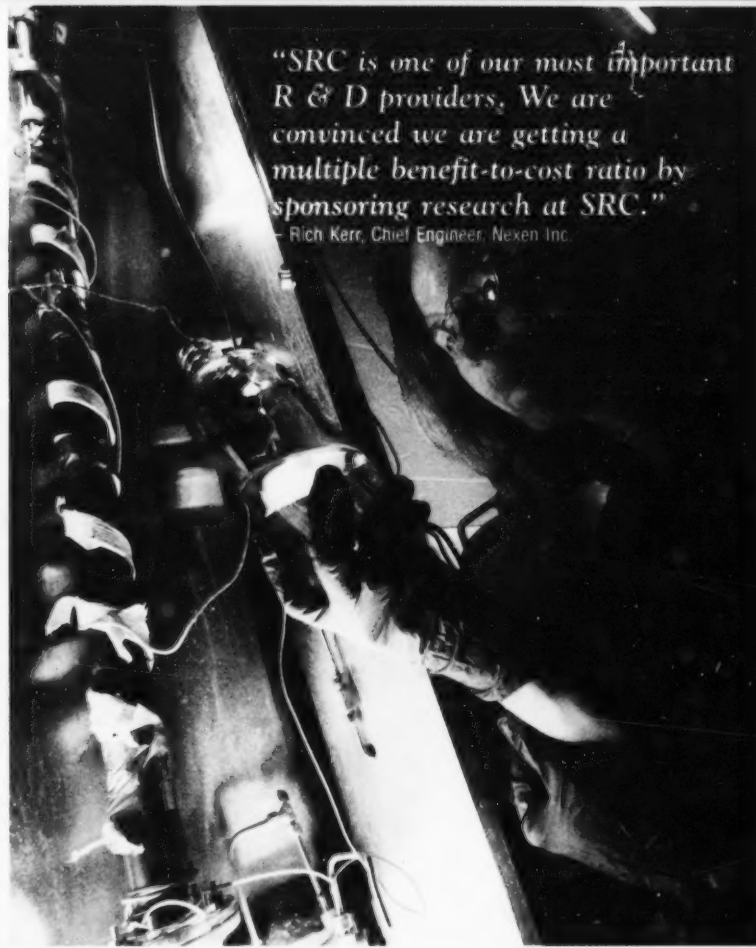
The new office is to become a focal point within the Saskatchewan government to co-ordinate and deliver energy conservation projects.

This includes facilitating energy efficiency upgrades in homes, businesses and community buildings; improving energy conservation training programs; and in developing strategies for reductions in greenhouse gas emissions.

PETROLEUM TECHNOLOGY RESEARCH CENTRE GOING STRONG

The Petroleum Technology Research Centre (PTRC) is a collaborative initiative of Saskatchewan Industry and Resources, Natural Resources Canada, the Saskatchewan Research Council and the University of Regina.

Since the PTRC was established in 1998 it has grown to become a completely integrated facility that works with industry customers to provide research solutions to specific problems encountered in their oil and gas operations.



"SRC is one of our most important R & D providers. We are convinced we are getting a multiple benefit-to-cost ratio by sponsoring research at SRC."

- Rich Kerr, Chief Engineer, Nexen Inc.

By offering a complete package of research capabilities, the PTRC has been able to provide industry with a menu of choices second to none in Canada. The PTRC's project list is now approaching 100.

As a founding member and partner in PTRC, SRC conducts research and development projects aimed at enhancing production and recovery of petroleum resources in Saskatchewan and elsewhere in Canada. The PTRC has four clearly-defined core areas of competency:

- Heavy oil cold flow, foamy flow and follow up process;
- Enhanced waterflooding;
- Near wellbore conformance processes;
- Miscible/immiscible flooding.





"SRC brings a level of expertise and professionalism to our partnerships that improves the quality of the final products and they help us maximize our technology training and learning opportunities."

— Doug Campbell, Manager of Forest Ecosystems, Saskatchewan Environment

Environment

DEVELOPING A DIGITAL MAP OF SASKATCHEWAN

SRC has worked with the Forest Inventory Group within the Forest Ecosystems Branch of Saskatchewan Environment in a number of capacities. For example, SRC was partners in two significant forest mapping projects in central and northern Saskatchewan that involved using satellite imagery, air photography and ground sampling to map forest cover and land use change.

"This work is providing essential information for supporting ongoing forest management programs as well as important research initiatives pertaining to climate change," explained Doug Campbell, Manager of Forest Inventory with the Ecosystems Branch of Saskatchewan Environment.

Campbell said the department has a unique relationship with SRC.

"The nature of our partnership ranges from cooperation in the technical design of remote sensing inventory applications, piloting or testing the procedures associated with these applications, conducting quality control of various applications and providing technology transfer and training in new technologies and applications to our staff," he said.

SRC is also an active partner with Saskatchewan Environment in a number of special forestry/ecosystem management research projects with other federal and provincial agencies as well as Non-Governmental Organizations.

"Working with SRC has improved our cost effectiveness," said Campbell, a forester.

"They have been instrumental in facilitating

partnerships and leveraging additional resources from other partners. SRC brings a level of expertise and professionalism to our partnerships that improves the quality of the final products and they help us maximize our technology training and learning opportunities."

SRC provides a unique blend of services in a professional and cooperative manner, he said.

Mapping projects at the heart of the SRC partnership with Saskatchewan Environment are world class.

The first, a three-year effort in Southern Saskatchewan completed in 1998, put Saskatchewan at the forefront of digital mapping in Canada.

The second is a natural extension of the initial project and encompasses the forested region of Saskatchewan north of the agriculture zone and forest fringe up to the North West Territories and Saskatchewan border. The results will be a complete digital land cover classification of Saskatchewan's provincial forests.

The digital maps have a variety of applications in forest management, ecosystem monitoring, wildlife and wildlife habitat management as well as other industry and programs including mining.

TESTING DRINKING WATER FOR CHILDREN

SRC's breadth of expertise is often required in areas beyond Saskatchewan. The work SRC's Analytical Laboratories conducted for the Government of Nova Scotia in 2002-03 is an example of capabilities that have been developed for Saskatchewan which can assist other locations in Canada.



The Nova Scotia government turned to SRC's Analytical Laboratories to conduct a full suite of radionuclide tests on a water sample taken during a renovation of one school.

"The sample reported levels above Canadian Drinking Water Quality Guidelines for the radionuclide lead-210," explained Jordan Mooers, a hydrogeologist with the Nova Scotia Department of Transportation and Public Works Environmental Services.

He said additional water samples were collected from schools with drilled wells in similar geology and indicated levels of lead-210 that exceed the national guidelines.

A Special Well-Water Advisory Group (SWAG), an interdepartmental government team led by the Department of Environment and Labour, was formed. Their objective was to study the significance of natural, waterborne radionuclides in public well water and to formulate a program to keep Nova Scotians from being exposed to levels that exceed the Canadian Drinking Water Quality Guidelines.

SRC was contracted because it is among a handful of laboratories in Canada with the technical expertise and equipment to conduct the tests for radionuclides. Water from all schools in Nova Scotia was tested.

"The staff at SRC have been very helpful in establishing and explaining the analytical procedure," Mooers said.

"They've worked with us in the timely reporting and interpretation of the sampling results. SRC is a valuable team member in the work toward fully understanding the nature of the lead-210 distribution in drinking water in Nova Scotia."

FOUR DECADES OF CLIMATE CHANGE

Every day for almost 40 years readings have been taken at the Climate Reference Station at Saskatoon.

However, climate observations in the Saskatoon area, consisting of temperature and precipitation, began with the Northwest Mounted Police in 1889. Much has changed since then. About 10 years ago, the Climate Reference Station converted to an automated system of data collection with the installation of a Campbell Scientific Data Logger and automatic sensors.

Now temperature, precipitation, wind velocity and direction, solar radiation, as well as atmospheric pressure are recorded every half hour at the Saskatchewan Research Council facility.

"The purpose of the Climate Reference Station is to provide a record of the observed meteorological elements so that the climate of the area and its changes can be accurately documented and described," explains Elaine Wheaton of SRC.

"Climate change has become a social, economic and environmental issue."

"Climate information is necessary and valuable for use in agriculture, forestry, land use, facilities' orientation as well as for tracking water resources and our overall health and comfort," Wheaton said.

Scientists take the basic data and use it in models to estimate possible climatic outcomes such as the impact of climate change on cities, forest and grasslands, she said.

The Saskatchewan Research Council works with a variety of clients to study the impact of climate change and how to improve adaptation to climate change.



**OTHER 2002-2003 HIGHLIGHTS:
UPGRADING GROUND WATER MONITORING
WELLS**

Upgrades continue to be made to SRC's network of 55 ground water level observation wells. The network was established in the 1960s and 1970s. The upgrades are done in partnership with the Saskatchewan Watershed Authority. Utilizing the data that is collected digitally on an hourly basis, SRC has developed a comprehensive database to show patterns and effects on ground water levels.

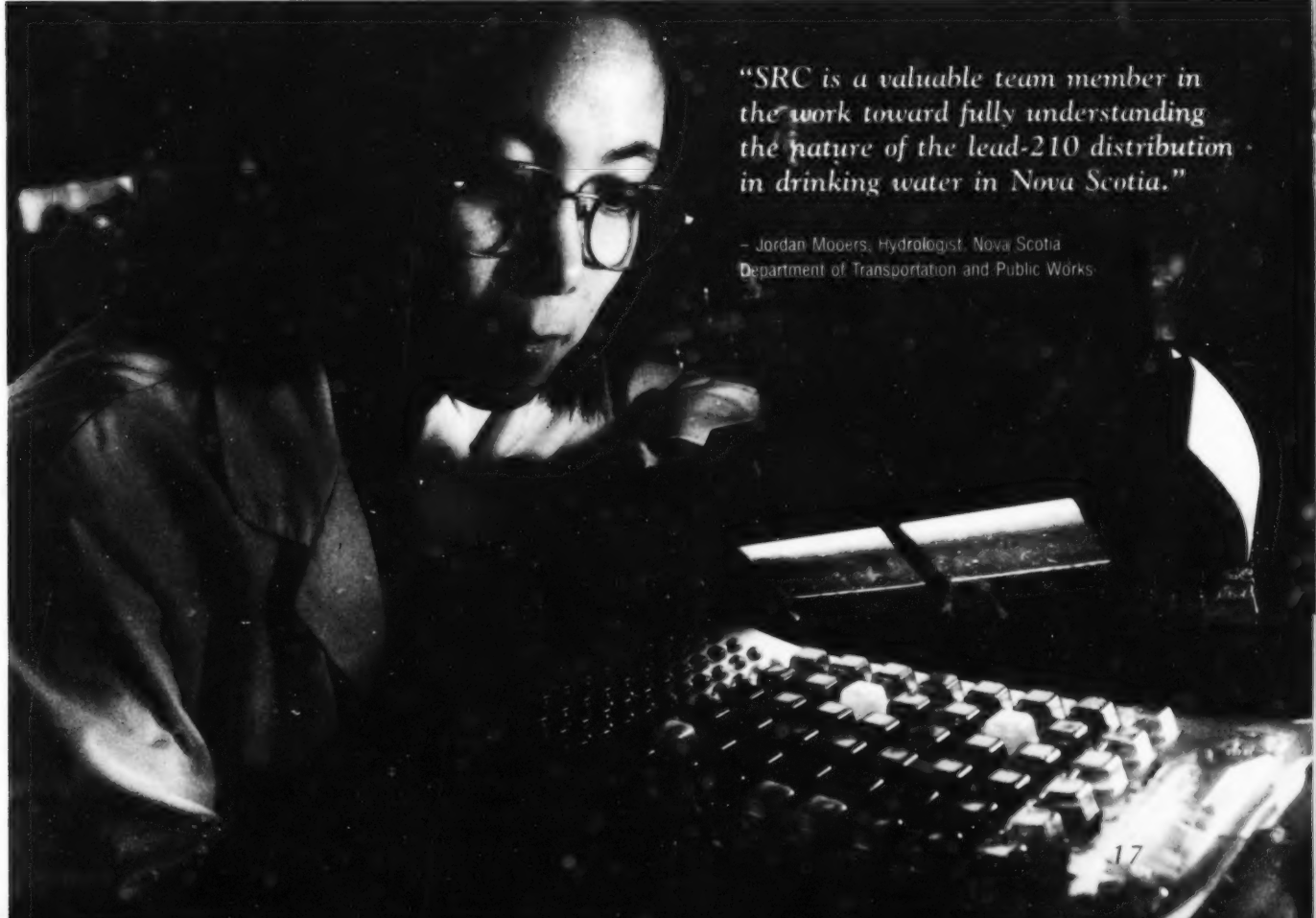
"The development of the observation well program in the 1960s was of great foresight. It gave us a jump on data collection and now provides a historical baseline for climatic information, impacts of pumping on aquifers and groundwater fluctuations on a long-term basis," explains

Nolan Shaheen, Director, Groundwater Manager, Saskatchewan Watershed Authority.

**DO GREENHOUSE GASES, OIL AND WATER
MIX?**

Meanwhile in southeastern Saskatchewan, SRC is studying ground water as part of an International Energy Agency (IEA) project to monitor the storage of carbon dioxide in the massive EnCana oil field.

The purpose is to establish baseline settings for models to assess the risk to the environment in case some of the carbon dioxide "escapes". This involves developing shallow hydrogeological settings of less than 300 metres in depth, for a large part of southeastern Saskatchewan and parts of neighboring North Dakota and Montana.



"SRC is a valuable team member in the work toward fully understanding the nature of the lead-210 distribution in drinking water in Nova Scotia."

*— Jordan Mooers, Hydrologist, Nova Scotia
Department of Transportation and Public Works*



"SRC was hired to run several tests comparing the old technology to the new technology. Not only did they verify the improvements over the existing technology but also we learned how SaskEnergy could make minor adjustments to the old technology to help reduce fuel consumption and green house gas emissions."

— Rick Schafer, general manager of planning, operations and maintenance, SaskEnergy

Manufacturing and Value-Added Processing

COMPANIES HELPED TO DEVELOP AND MARKET NEW PRODUCTS

The Saskatchewan Research Council can be a valuable partner for companies developing new products, wanting to improve productivity or those needing assistance with marketing strategies.

SRC's proven engineering expertise can help design prototypes and products in plastics, metal, construction materials as well as electronics and software.

Windows of financial opportunity can also be opened by SRC for new generation cooperatives, companies and industry associations.

Through partnership in federal programs, SRC can link manufacturers and small businesses with other appropriate sources of advice or funding. SRC provides productivity and quality consulting to individual companies and industry associations.

Consulting services provided through the Manufacturing and Value-Added Processing division of SRC are helping to launch a new and unique Saskatchewan enterprise.

CREATING GREEN FUEL ETHANOL FROM WASTE

An enthusiastic group of people in the Nipawin area has established a new generation cooperative to produce green fuel ethanol from agriculture and forestry waste.

The genesis for the Nipawin project is a Saskatchewan Research Council strategic study report on ethanol production and use by Keith Hutchence of the Energy Division. Hutchence successfully promoted the project as a new

generation co-op, giving a number of presentations to the Nipawin general public, local business and political leaders, and members of local First Nations bands. SRC will continue to participate in the project to commercialize the new technology.

In addition to the Town of Nipawin and SRC, other key participants are TecMark International, SaskEnergy, AGB Technologies of Regina, the Rural Municipalities of Nipawin and Torch River, Metis Local #134 and three regional First Nations: Cumberland House Cree Nation, Red Earth First Nation and Shoal Lake Band of the Cree Nation.

Sherry Michalyca, Economic Development Officer for the Town of Nipawin, said the biomass ethanol project progressed rapidly from a Memorandum of Understanding being signed in the fall to an initial share offering being fulfilled in the winter.

"Nipawin has benefited greatly from its relationship with SRC," she said.

"The relationships we have built with several branches within SRC have assisted us not only with the Nipawin Biomass Ethanol Project, but have also opened the door for several cooperative projects with both existing companies and new initiatives."

Nipawin was an ideal location for the biomass project because of access to both forestry and agricultural residues, proximity to power and transportation as well as an enthusiastic community support.

"It is amazing the wealth of information and people that we have within Saskatchewan and especially within the Saskatchewan Research Council," she said. "We have the opportunity for Made in Saskatchewan projects and technologies. SRC is the binding force through which we can see these things happen."



HEATING FROZEN NATURAL GAS LINES

Cold Weather Technologies had developed a new preheating device for the oil industry, which was successful, but wanted to adapt it for the natural gas industry. Cold Weather partnered with SaskEnergy to evaluate the application of this technology for the natural gas industry.

SRC was the natural choice to assess the technology as an independent third party.

"They (Cold Weather Technologies) came to SaskEnergy to help develop this technology because of our long history of operating a natural gas system, our commitment to continually improve the operation of our conventional technology to reduce fuel consumption and improve the maintenance issues that we deal with on a daily basis," said Rick Schafer, who was the general manager of operations, planning and maintenance at the time of the project.

Natural gas flows from storage to customers through high-pressure pipelines.

The pressure in SaskEnergy's high-pressure pipeline system typically ranges from 600 psi to 1200 psi. The reduction in pressure causes an associated cooling affect that can lead to freezing and failure of the pressure regulator.

"If this happens it stops the flow, hence losing pressure to customers," Schafer said. "This is not a good thing for natural gas companies if they want to maintain a safe reliable system for our customers and the public."

To avoid this problem, the natural gas is preheated with Line Heater prior to expanding the gas through a regulator.

Technology used to do this hasn't changed in almost 40 years.

"Cold Weather Technologies believes its new technology has the potential for improving overall efficiencies compared with the conventional technology, which would result in, reduced fuel consumption, easier to maintain and reduce green house gas emissions," Schafer said.

In order to validate their claims to improvements in the technology, SRC was contracted to run several tests comparing the old technology to the new technology.

"Not only did SRC verify the improvements over the existing technology, but also we learned how SaskEnergy could make minor adjustments to the old technology to help reduce fuel consumption and green house gas emissions."

SaskEnergy and Cold Weather Technologies are moving to the next phase of testing in a field application at a SaskEnergy natural gas facility. SRC will continue to be involved verifying the results and making recommendations where appropriate.

Schafer said if results of the next phase are successful the natural gas industry will have a new product that can reduce costs while helping to improve the environment.



OTHER 2002-2003 HIGHLIGHTS:

An Alliance for Intelligent Systems Technologies

Saskatchewan Industry and Resources, the Saskatchewan Research Council and Precarn Incorporated joined forces last year to help Saskatchewan industry develop and apply intelligent system technologies by and for Saskatchewan businesses.

This Alliance will give companies the opportunity to access up to \$400,000 towards the development of intelligent system technologies. Intelligent systems are any systems which emulate and actively employ some part of the intelligent capacity of a human in performing a task. In the context of the Alliance program, the focus is those which demand some combination of a higher level of integrated sensing, reasoning, activity, and interaction with a human.

Natural Gas Vehicles

SRC and several partners have been contracted to develop new technologies to reduce cost, improve safety, and increase the reliability of fuel systems for natural gas and hydrogen vehicles.

The application of the intelligent systems technology will reduce urban smog, optimize power, and improve efficiency. There is also considerable crossover in technology between natural gas vehicles and fuel-cell vehicles.

This is the second phase of a project supported by Precarn and Natural Resources Canada. Other participants include Powertech Labs Inc. out of Surrey, Technocarb Equipment Ltd. out of Abbotsford, Dynetek Industries out of Calgary, and the University of Saskatchewan.





"We have maintained our relationship for more than 25 years because of the quality work and their mix of commercial work with fundamental research."

- John Oxenford, Manager, Research Programs, Syncrude Canada Ltd

Mining and Minerals

PIPE FLOW CENTRE HELPS DEVELOP OIL SANDS

Canada's rich oil sands and massive uranium deposits have been developed over the past quarter century in part because of the practical expertise provided by the mining and minerals section at the Saskatchewan Research Council.

Technologies to mine the thick, gooey oil and high-grade uranium deposits are vastly different.

However, the problem solving skills of SRC's team of scientists augmented by the fundamental research at the nearby University of Saskatchewan provides customers with a comfort level second to none anywhere in the world.

"We have maintained our relationship for more than 25 years because of the quality work and their mix of commercial work with fundamental research," said John Oxenford, Manager, Research Programs, Syncrude Canada Ltd.

Syncrude, based in Fort McMurray, Alberta, is the world's largest producer of crude oil from oilsands. Syncrude and SRC's Pipe Flow Technology Centre have had a close working relationship since 1976 when Syncrude approached SRC to study pumping characteristics for tailings disposal.

SRC was chosen for the project because it was one of the few places in the world that could perform the required test work at a large enough scale. Since then, Syncrude has worked in a close partnership with SRC on other pipeline slurry projects.

In fact, Syncrude believed so much in the quality of work provided by SRC that it nominated the Pipe Flow Technology Centre for the prestigious ASTech Award for Outstanding Achievement in Applied Technology and Innovation.

The Pipe Flow Technology Centre, a 23,000-square-foot facility located in Saskatoon's north industrial area, is one of the few organizations outside of Alberta to win the annual award presented by the Alberta Science and Technology Leadership Awards Foundation.

The ASTech award goes to an individual or team who have demonstrated leadership and innovation and who have made a significant contribution through the discovery, application and implementation of technology products or processes.

SRC's Pipe Flow Technology Centre received the award in recognition of a new technology developed for Alberta's energy industry.

The facility is unique in Canada with only one other such facility in the USA.

SRC, working with companies such as Syncrude, has developed an expertise in studying slurry flow in pipelines.

Slurries are composed of solid particles suspended in a fluid. Slurry flows are important to the Canadian mining industry, including the potash and uranium producers in Saskatchewan and of interest to the Canadian petroleum industry – in particular, Saskatchewan heavy oil producers.

SRC's Pipe Flow Technology Centre has been conducting slurry research since 1967 when the focus was on potash. In 1976, the research focus shifted to meet the demands of the oil sands industry.

The oil sands research by the Centre has since expanded to include oil sand hydrotransport, transport of mature fine tailings, past transport, overburden transport, froth transport and the development of Syncrude's cycloseparator. This



work has helped SRC build the critical mass of expertise and facilities that are needed to develop related technologies for Saskatchewan's petroleum and mineral processing industries.

CRUNCHING NUMBERS TO FIND HIGH-GRADE URANIUM

A multi-discipline team involving scientists and exploration geologists from Australia, Canada, France and South Africa has completed a three-year study utilizing data sets from the high-grade uranium deposit beneath the Athabasca Basin in northern Saskatchewan.

The purpose of the project was to develop conceptual models and to test those models using numerical computer codes in order to better understand how the "unconformity-type" uranium deposits of the Athabasca Basin are formed.

The project was a collaborative effort by the Saskatchewan Research Council, the Commonwealth Scientific & Industrial Research Organization (CSIRO-Australia), CREGU (France), Cogema Resources Inc., Cameco Corporation and Anglo Gold (South Africa). Dr. Irvine Annesley of SRC was the project leader.

Launched in 2000, the study involved exhaustive fluid inclusion, fault zone, seismic and ore-forming geochemical reactions research as well as model building, GOCAD modeling, numerical FLAC3D and OST3D modeling.

Along with helping the involved partners gain an understanding of how and why this type of uranium deposit was formed, the project also added new,

leading-edge information to the existing knowledge of the Athabasca Basin.

By developing a greater understanding of the mechanical, heat, fluid flow and ore-forming processes responsible for the known deposits of the region, the potential for finding new, large high-grade uranium deposits has been increased.

In short, a key objective was to develop exploration tools for predicting where to find other unconformity-type deposits of high-grade uranium in deeper parts of the Athabasca Basin and elsewhere in the rest of the world.

Project researchers also worked on ways to improve the transfer of large data sets and the visualization of computer-generated models. The end result was a confidential File Transfer Protocol (FTP) site for transferring data and a confidential web site for presenting project results to project partners around the world. Both sites were operated and maintained by SRC.

The three-year study is important to Saskatchewan taxpayers because uranium is one of Saskatchewan's significant industries. SRC's role as project leader in a multi-client research projects helps to expand SRC's expertise and to enhance Saskatchewan's position in the global market.

Saskatchewan is the world's largest producer and exporter of uranium, accounting for one third of the global production and all of Canada's uranium production.

The international study is yet another example of how SRC has worked collaboratively to develop the uranium industry in Saskatchewan.



SRC's Mission: A Report Card

The previous report featured the success stories of SRC's customers and partners. These stories reflect the outstanding work and innovation occurring in Saskatchewan, and SRC is proud to have played a role by providing smart science solutions.

SRC's mission is to help the people of Saskatchewan strengthen the economy with quality jobs and a secure environment. The stories within this annual report provide a qualitative measure that SRC is indeed fulfilling this mission.

As a matter of best practices senior management wanted to take the evaluation of SRC's mission effectiveness a step further by implementing a program which would provide quantifiable data. The result was the development and implementation of an Impact Analysis program.

The Impact Analysis program provides information about the direct impacts SRC is having in Saskatchewan. The program is based on similar programs which other organizations use, but has been modified to reflect SRC's unique role as a provider of both contract research and development, and public good initiatives.

The bulk of the data was collected directly from clients – asking them how SRC has benefited their work. The result was a repertoire of Impact Audit Reports for each client outlining details on the work as well as economic data. Ultimately, the client signs-off on the reports.

"Having the clients as a key partner in the process for determining economic impact eliminates any guesswork," says Wanda Brown, Manager of Communications at SRC. "The client is providing the data, and the testimony, for how SRC's work has benefited their business."

Using the economic data provided by the clients, plus supplementary industry data, SRC is able to determine its impact. Based on the findings, it was determined that in 2002 in Saskatchewan, SRC contributed to the creation or maintenance of more

than 200 jobs and the development of more than 243 million dollars.

"The best part of the Impact Analysis program is having the opportunity to speak one-on-one with SRC's clients," says Brown. "Our clients are working in such diverse areas of technology and innovation, it's really exciting to hear their stories, perspectives, challenges and successes."

Another aspect the Impact Analysis identifies is public good initiatives. Although these initiatives do not provide a direct measurable monetary benefit, they play a crucial role in business development in the province as well as contributing to a secure environment.

For example, SRC's groundwater observation well network is a program which has been in place since 1964 in Saskatchewan. The program is unique within Canada and provides Saskatchewan with comprehensive, historical data of groundwater activities. This data is used by climatologists, farmers, hydrogeologists, natural gas and oil well drillers, government, and city planners. Using this data helps customers ensure they have a sustainable fresh water supply. As well, it minimizes the risk of groundwater contamination.

Another non-economic impact identified in the analysis is SRC's contribution to the reduction of greenhouse gases through its work in the area of CO₂ injection for enhanced oil recovery. SRC played a leading role in the development of this technology which is now being used in the oilpatch at Encana's Weyburn site. As of October 2002, more than 2.4 million tonnes of CO₂ had been injected at this site which would have otherwise been released to the atmosphere.

SRC's success is measured by the success of its clients. The Impact Analysis program allows SRC to measure its mission effectiveness by talking directly with customers to hear how their challenges have been met with the support of SRC.

SRC's Mission: A Report Card

The previous five sections tell the success stories of SRC's customers and partners. These stories reflect the outstanding work and innovation occurring in Saskatchewan, and SRC is proud to have played a role by providing smart science solutions.

SRC's mission is to help the people of Saskatchewan strengthen the economy with quality jobs and a secure environment. The stories within this annual report provide a qualitative measure that SRC is indeed fulfilling this mission.

As a matter of best practices senior management wanted to take the evaluation of SRC's mission effectiveness a step further by implementing a program which would provide quantifiable data. The result was the development and implementation of an Impact Analysis program.

The Impact Analysis program provides information about the direct impacts SRC is having in Saskatchewan. The program is based on similar programs which other organizations use, but has been modified to reflect SRC's unique role as a provider of both contract research and development, and public good initiatives.

The bulk of the data was collected directly from clients – asking them how SRC has benefited their work. The result was a repertoire of Impact Audit Reports for each client outlining details on the work as well as economic data. Ultimately, the client signs-off on the reports.

"Having the clients as a key partner in the process for determining economic impact eliminates any guesswork," says Wanda Brown, Manager of Communications at SRC. "The client is providing the data, and the testimony, for how SRC's work has benefited their business."

Using the economic data provided by the clients, plus supplementary industry data, SRC is able to estimate its impact. Based on the findings, it was determined that in 2002 in Saskatchewan, SRC contributed to the creation or maintenance of more

than 300 jobs and had a direct economic impact of more than \$45 million.

"The best part of the Impact Analysis program is having the opportunity to speak one-on-one with SRC's clients," says Brown. "Our clients are working in such diverse areas of technology and innovation, it's really exciting to hear their stories, perspectives, challenges and successes."

Another aspect the Impact Analysis identifies is public good initiatives. Although these initiatives do not provide a direct measurable monetary benefit, they play a crucial role in business development in the province as well as contributing to a secure environment.

For example, SRC's groundwater observation well network is a program which has been in place since 1964 in Saskatchewan. The program is unique within Canada and provides Saskatchewan with comprehensive, historical data of groundwater activities. This data is used by climatologists, farmers, hydrogeologists, natural gas and oil well drillers, government, and city planners. Using this data helps customers ensure they have a sustainable fresh water supply. As well, it minimizes the risk of groundwater contamination.

Another non-economic impact identified in the analysis is SRC's contribution to the reduction of greenhouse gases through its work in the area of CO₂ injection for enhanced oil recovery. SRC played a leading role in the development of this technology which is now being used in the oilpatch at Encana's Weyburn site. As of October 2002, more than 2.4 million tonnes of CO₂ had been injected at this site which would have otherwise been released to the atmosphere.

SRC's success is measured by the success of its clients. The Impact Analysis program allows SRC to measure its mission effectiveness by talking directly with customers to hear how their challenges have been met with the support of SRC.



SRC's Commitment to the Community

INNOVATORS IN THE SCHOOLS

For the past three years, the Saskatchewan Research Council has held open house activities for almost 200 students from Grades 5 and Grade 6 in Regina and Saskatoon to promote its relationship with Innovators in the Schools.

This format is designed to introduce those students to the science applied at SRC in a fun, interactive way. The Innovators in the Schools organization recruits and organizes the schools that attend.

The program complements SRC's mandate because it promotes awareness of science and technology to school-aged youth. A residual benefit is that students are encouraged to pursue math and science programs to prepare them for science-based careers.

SRC RESPONDS TO FOOD BANK CHALLENGE

Mary Moody is a biologist at the Saskatchewan Research Council who responded to a public appeal made during a supertime television newscast for the Saskatoon Food Bank.

"I suggested the idea of SRC collecting donations of food and money to my colleagues at coffee break the next day, got the endorsement from senior management, and established the Food Bank Challenge," Moody said.

"It seemed like the right thing to do and it was a lot of fun."

Results were based on weight of donations per capita. That is, the total donations were divided by the number of employees in each branch division.

There was a tie between the Environment Division

and Corporate Administration at 2.8 kilograms per capita. The real winners from Moody's enthusiastic effort at SRC are those who require the services from the Food Bank.

TECHNOLOGY-IN-ACTION

Saskatchewan's early settlers survived and prospered because they were innovative, determined, adaptive and practical – attributes that form the foundation of any successful venture today. The Technology-in-Action Fund is a perpetual memorial fund that is based on these attributes.

The fund was established by the families of Ian and Pearl Wahn to honor their parents and grandparents who were pioneers of Saskatchewan. Donations are also accepted from private and public organizations, individuals and families who share the desire to leave a lasting legacy to the people of this province.

The purpose of the fund is to help the people of Saskatchewan develop this province as a highly skilled, fair, desirable and compassionate society with a secure environment. In practical terms, it means working to address the immediate needs of small and medium-sized businesses, farmers, rural communities and natural resource development.



Ian Wahn



Corporate Governance

AUTHORITY

The Saskatchewan Research Council (SRC) is a Treasury Board crown corporation governed by *The Research Council Act*. Within this framework, the Board formulates policy and delegates the responsibility and authority for the ongoing management of the corporation to the President & CEO.

BOARD RESPONSIBILITIES

The Board ensures that the activities of the corporation are carried out under the terms of *The Research Council Act*. The Board oversees the stewardship of the corporation by accepting responsibility for strategic planning, financial management and monitoring business performance. The Board ensures that management has systems in place to identify and manage the principal risks of the corporation's business.

BOARD COMPOSITION AND COMPENSATION

The SRC Board is comprised of ten members with a diverse combination of knowledge and expertise including scientific, legal, management, financial and public relations skills. The members represent a cross-section of SRC's stakeholder community including individuals from business, industry, the public sector and academic institutions.

Nine directors, including the Chair, are independent of SRC management. Related directors include the President & CEO of the corporation.

Board members receive an honorarium for meetings attended. The level of compensation is established by Treasury Board. Members are allowed travel and associated expenses at SRC approved rates.

THE BOARD AND MANAGEMENT

The Board focuses on the strategic leadership of the corporation and does not become involved in day-to-day management, but delegates and entrusts operational decisions to senior management, holding

senior management accountable for the company's performance, its long-term viability and the achievement of its objectives.

COMMITTEES

The Board of Directors has established the following committees to address specific areas of Board responsibility:

Audit/Finance Committee

The Audit/Finance Committee is responsible for monitoring, advising and making recommendations to the Board regarding all aspects of financial planning and the financial management of the organization. The Audit/Finance Committee acts as the communication link between the Board of Directors and the Provincial Auditor.

Governance Committee

The Governance Committee is responsible for monitoring, advising and making recommendations to the Board regarding the governance strategy of the corporation, assessment and evaluation of the Board and CEO performance, administration of the Board-CEO relationship and monitoring and assessment of risk within the corporation.

BOARD ORIENTATION AND TRAINING

New directors appointed to the Board receive a Board of Directors' Briefing Book and attend an orientation session delivered by senior management and the Chair of the Board. The orientation session includes an overview of the corporation including mandate and mission, governance structure, partnerships, competition issues, 5-year strategic plan, financial/operational plan, SRC's strategic sectors and strategic approach, risk management strategy, communication strategies and economic impact assessment. A tour of SRC's facilities is provided to introduce new directors to SRC's operations.

Corporate Governance

The Saskatchewan Research Council (SRC) is a Treasury Board Crown corporation governed by *The Research Council Act*. Within this framework, the Board formulates policy and delegates the responsibility and authority for the ongoing management of the corporation to the President & CEO.

BOARD RESPONSIBILITIES

The Board ensures that the activities of the corporation are carried out under the terms of *The Research Council Act*. The Board oversees the stewardship of the corporation by accepting responsibility for strategic planning, financial management and monitoring business performance. The Board ensures that management has systems in place to identify and manage the principal risks of the corporation's business.

BOARD COMPOSITION AND COMPENSATION

The SRC Board is comprised of ten members with a diverse combination of knowledge and expertise including scientific, legal, management, financial and public relations skills. The members represent a cross-section of SRC's stakeholder community including individuals from business, industry, the public sector and academic institutions.

Nine directors, including the Chair, are independent of SRC management. Related directors include the President & CEO of the corporation.

Board members receive an honorarium for meetings attended. The level of compensation is established by Treasury Board. Members are allowed travel and associated expenses at SRC approved rates.

THE BOARD AND MANAGEMENT

The Board focuses on the strategic leadership of the corporation and does not become involved in day-to-day management, but delegates and entrusts operational decisions to senior management, holding

accountable for the results.

COMMITTEES

The Board of Directors has established the following committees to address specific areas of Board responsibility:

Audit/Finance Committee

The Audit/Finance Committee is responsible for monitoring, advising and making recommendations to the Board regarding all aspects of financial planning and the financial management of the organization. The Audit/Finance Committee acts as the communication link between the Board of Directors and the Provincial Auditor.

Governance Committee

The Governance Committee is responsible for monitoring, advising and making recommendations to the Board regarding the governance strategy of the corporation, assessment and evaluation of the Board and CEO performance, administration of the Board-CEO relationship and monitoring and assessment of risk within the corporation.

BOARD ORIENTATION AND TRAINING

New directors appointed to the Board receive a Board of Directors' Briefing Book and attend an orientation session delivered by senior management and the Chair of the Board. The orientation session includes an overview of the corporation including mandate and mission, governance structure, partnerships, competition issues, 5-year strategic plan, financial/operational plan, SRC's strategic sectors and strategic approach, risk management strategy, communication strategies and economic impact assessment. A tour of SRC's facilities is provided to introduce new directors to SRC's operations.

Report of Management

Year Ended March 31, 2003

The accompanying financial statements are the responsibility of the management of the Saskatchewan Research Council. They have been prepared in accordance with Canadian generally accepted accounting principles, using management's best estimates and judgements, where appropriate.

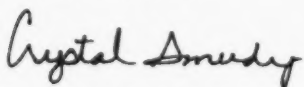
Management is responsible for the reliability and integrity of the financial statements, the notes to the financial statements, and other financial information contained in this report. Management is also responsible for maintaining a system of internal controls, policies and procedures designed to provide reasonable assurance that assets are safeguarded and that accounting systems provide timely, accurate and reliable financial information.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board is assisted in exercising its responsibilities through the Audit/Finance Committee, which is composed of five non-management directors and one management director. The Committee meets periodically with management to satisfy itself that management's responsibilities are properly discharged, to review the financial statements and to recommend approval of the financial statements to the Board.

The Provincial Auditor of Saskatchewan has audited the Council's financial statements in accordance with Canadian generally accepted auditing standards and his report follows.



Laurier Schramm
President and CEO



Crystal Smudy, CA
Chief Financial Officer

Consolidated Financial Statements

Year Ended March 31, 2003



AUDITOR'S REPORT

To the Members of the Legislative Assembly of Saskatchewan.

I have audited the consolidated balance sheet of the Saskatchewan Research Council as at March 31, 2003 and the consolidated statements of operations and retained earnings and cash flows for the year then ended. The Council's management is responsible for preparing these financial statements for Treasury Board's approval. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these consolidated financial statements, present fairly, in all material respects, the financial position of the Council as at March 31, 2003 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Regina, Saskatchewan
May 16, 2003



Fred Wendel, CMA, CA
Provincial Auditor



Saskatchewan Research Council

CONSOLIDATED BALANCE SHEET

As At March 31

(Thousands of dollars)

STATEMENT 1

	2003	2002
ASSETS		
Current assets:		
Cash	\$ 189	\$ 0
Accounts receivable	2,437	2,754
Prepaid expenses	467	580
	3,093	3,334
Non-current assets:		
Accrued benefit asset (Note 3)	0	488
Restricted investment (Note 4)	405	533
Capital assets (Note 5)	6,832	7,194
	\$ 10,330	\$ 11,549

LIABILITIES AND PROVINCE'S EQUITY

Current liabilities:		
Bank indebtedness (Note 6)	\$ 0	\$ 924
Accounts payable	1,216	1,053
Unearned revenue	1,307	1,065
Deferred revenue (Note 7)	399	399
Salaries and wages payable	353	276
Vacation payable	70	126
	3,345	3,843
Non-current liabilities:		
Accrued benefit liability (Note 3)	52	0
Sick leave benefits payable	315	335
Accrual for decommissioning (Note 8)	1,210	1,062
Deferred revenue (Note 7)	1,655	2,054
	6,577	7,294
Province's equity:		
Contributed surplus	922	922
Retained earnings - unappropriated (Statement 2)	2,426	2,800
Retained earnings - appropriated (Note 4)	405	533
	3,753	4,255
	\$ 10,330	\$ 11,549

(See accompanying notes to the financial statements)



Saskatchewan Research Council

CONSOLIDATED STATEMENT OF OPERATIONS AND RETAINED EARNINGS

Year Ended March 31

(Thousands of dollars)

STATEMENT 2

	2003 (Note 12)	2002 (Note 12)
Revenue:		
Contracts	\$ 13,338	\$ 11,746
Grant - General Revenue Fund	7,714	8,371
Grant - Agri-Food Innovation Fund (Note 7)	399	399
Interest revenue	59	123
	21,510	20,639
Expenses:		
Salaries and benefits	10,472	10,076
Supplies and services	4,956	4,899
Accommodation charges	4,270	4,315
Amortization of capital assets	1,247	1,154
Amortization of Agri-Food Innovation Fund funded assets (Note 7)	399	399
Change in restricted investment (Note 4)	128	(6)
	21,472	20,837
Net income/(loss) from operations	38	(198)
Defined benefit pension plan (expense) revenue (Note 3)	(540)	123
Net loss	(502)	(75)
Retained earnings - unappropriated, beginning of year	2,800	2,881
Change in appropriated amount during year (Note 4)	128	(6)
Retained earnings - unappropriated, end of year - to Statement 1	\$ 2,426	\$ 2,800

(See accompanying notes to the financial statements)



Saskatchewan Research Council

CONSOLIDATED STATEMENT OF CASH FLOWS

Year Ended March 31

(Thousands of dollars)

STATEMENT 3

	2003	2002
Cash flows from operating activities:		
Cash receipts from contracts	\$ 13,572	\$ 11,926
Cash receipts from General Revenue Fund	7,714	8,306
Cash paid to suppliers and employees	(19,118)	(19,875)
Interest received	59	123
Cash flows from operating activities	2,227	480
Cash flows from investing:		
Purchase of capital assets	(1,316)	(1,315)
Proceeds from sale of capital assets	202	1,009
Cash flows used in investment activities	(1,114)	(306)
Net increase in cash and cash equivalents	1,113	174
Cash and cash equivalents, beginning of year	(924)	(1,098)
Cash and cash equivalents, end of year	\$ 189	\$ (924)
Represented by:		
Cash (Bank indebtedness)	\$ 189	\$ (924)

(See accompanying notes to the financial statements)



Saskatchewan Research Council

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

March 31, 2003

1. STATUS OF SASKATCHEWAN RESEARCH COUNCIL

Saskatchewan Research Council ("the Council") was established pursuant to Section 3 of *The Research Council Act* for the purpose of research and investigation in the fields of the physical sciences, pure and applied, as they affect the economy of the Province of Saskatchewan. The Council is a body corporate which receives monies appropriated by the Legislature for these purposes. It is also empowered to conduct research under contract for others and to receive financial assistance pursuant to agreements with other similar agencies.

2. SUMMARY OF ACCOUNTING POLICIES

The financial statements are prepared in accordance with Canadian generally accepted accounting principles. The following accounting principles are considered to be significant:

a) Consolidation Principles and Basis of Presentation

The accounts of TecMark International Commercialization Inc., a wholly owned subsidiary of the Saskatchewan Research Council, are consolidated in these financial statements.

The Council's proportionate share of the assets, liabilities, revenues, expenses and cash flows of a joint venture with Bova-Can Parentage Testing Inc. are included in these financial statements.

b) Accrual Basis

The financial statements are prepared on the accrual basis of accounting.

c) Revenue Recognition

Revenue from contract work is recognized on the percentage-of-completion method, which recognizes revenue as a contract progresses. Unbilled revenues are accrued to the year-end for these contracts, while pre-billed revenues received are classified as unearned revenue.

Grants from the General Revenue Fund are unrestricted in nature and recognized as they are received or receivable.

Other contributions that are restricted for a specified use are deferred and are recognized as revenue when the related expenses are incurred.



2. SUMMARY OF ACCOUNTING POLICIES (CONTINUED)

Agri-Food Innovation Fund (AFIF) revenue is recognized at the same rate as the related assets are put in use and amortized.

d) Capital Assets

The assets of the Council are initially recorded at cost, including labour, material and overhead for self-constructed assets.

Amortization of capital assets is provided over the estimated useful lives of the assets on the following basis:

i) Sum-of-the-years'-digits method

Buildings	20 years
Equipment	5-10 years

ii) Declining balance method

Automotive	33 1/3%
------------	---------

iii) Straight-line

Goodwill	5 years
Leaseholds	1 - 9 years
Fermentation and GenServe Equipment	10 years

e) Accrued Vacation Credits

The costs associated with vacation credits are recognized when the vacation entitlements are earned. The value of credits earned to the year-end but not taken is reflected as a liability.

f) Sick Leave Benefits

The Council allowed unused sick leave credits to accumulate over the term of employment for each employee to March 31, 1998. The costs associated with these sick leave benefits are recognized when benefits are earned and accumulated by employees at a rate of 10% of the unused accumulated value of credits earned.

The practice of accumulating sick leave credits for 10% payout ceased effective April 1, 1998. Upon termination of employment the Council pays out 10% of the accumulated unused sick leave credits to March 31, 1998, based on the wage rate in effect at March 31, 1998.



2. SUMMARY OF ACCOUNTING POLICIES (CONTINUED)

g) **Accrual for Decommissioning**

The Council accrues the liability for future decommissioning and site restoration costs when the likelihood of incidence is established and such costs can be reasonably determined. Annual provisions for estimated future asset decommissioning and site restoration costs, less any residual or salvage value, are charged to Supplies and services expense over the remaining service lives of the related capital assets. These cost estimates are revised periodically in accordance with changes in the assumptions and estimates underlying the calculations, with changes in technology, with experience arising from the decommissioning of capital assets, and with changes in applicable legislation and regulations.

h) **Restricted Investment**

The investment is comprised of deposits in units in a balanced mutual fund managed by a professional investment manager. The balanced mutual fund has no fixed interest rate, and the return is based on the performance of the fund. Additional units in the mutual fund are acquired when distributions are made by the fund. Cash dividends are not paid by the fund; however, investors can realize changes in the underlying unit values by redeeming units.

Units in the mutual fund are recorded in the accounts at their net asset value per unit. Net asset value per unit is the market value of the investments in the fund portfolio divided by the total number of outstanding units in that fund. The adjustment necessary to record units at their net asset value at the year-end is shown as a change in restricted investment on the Consolidated statement of operations and retained earnings.

3. ACCRUED BENEFIT ASSET (LIABILITY) - PENSION PLAN

The Council maintains a pension plan for its employees. Until December 31, 1990, it was a defined benefit plan. Effective January 1, 1991, the plan was changed to a defined contribution plan. The changes do not affect existing pensioners who will continue to receive benefits as granted. The latest actuarial valuation was updated as at January 1, 2003. The pension plan has been valued using management's best estimates.

The defined contribution plan had a market value of \$15,874,000 (2001 - \$17,918,000) at December 31, 2002. The value of the defined contribution plan assets and liabilities has not been extrapolated from December 31 to March 31. By design, the assets will always equal the liabilities of a defined contribution plan.



3. ACCRUED BENEFIT ASSET (LIABILITY) - PENSION PLAN (CONTINUED)

The defined benefit asset and obligation have been extrapolated from the January 1 actuarial valuation to March 31. The financial position of the defined benefit plan is as follows:

	2003 (000's)	2002 (000's)
Defined benefit asset at market value, January 1	\$ 2,659	\$ 3,306
Net change in asset value	(50)	(63)
Asset value, extrapolated to March 31	2,609	3,243
Defined benefit obligation at January 1	2,704	2,801
Net change in obligation	(43)	(46)
Obligation, extrapolated to March 31	2,661	2,755
Accrued benefit (liability) asset, March 31	\$ (52)	\$ 488

Upon termination of the Plan, any accrued benefit asset of the Pension Fund remaining, after discharging all liabilities, shall belong to the Council. The accrued benefit asset may be distributed in a manner to be determined by the Council, at its sole discretion, after receiving prior approval in accordance with *The Pension Benefits Act, 1992*, the *Income Tax Act (Canada)* and the regulations thereunder.

The defined benefit pension plan expense of \$540,000 (2002 revenue - \$123,000) is the year over year change in the accrued benefit asset and obligation. The defined contribution pension plan expense (employer contributions) for the year was \$490,756 (2002 - \$469,751). The benefits paid from the defined benefit pension plan during the year were \$334,472 (2002- \$377,804). Effective January 1, 2003 SRC will not request reimbursement for administrative costs incurred by the pension plan from plan assets for an indefinite period of time. This decision was based on the current existence of an accrued benefit liability existing in the plan.

4. RESTRICTED INVESTMENT

Restricted investment represents the Technology in Action Fund ("Fund"), which was established by the Council in 1994 when Mr. Ian Wahn made a gift to the Council, an agent of the Crown. The Fund was established to help the people of Saskatchewan develop their province as a highly skilled, fair, desirable and compassionate society with a secure environment through research, development and the transfer of innovative scientific and technological solutions, applications and services. The Council received a binding ruling from Canada Customs and Revenue Agency that accepts this as a "Gift to the Crown". The Council will maintain a separate account of the capital contributions and all investment income earned.



4. RESTRICTED INVESTMENT (CONTINUED)

The balance of the fund at March 31 is as follows:

	2003 (000's)	Change (000's)	2002 (000's)
Capital contributions	\$ 504	\$ 0	\$ 504
Investment (losses) earnings	(12)	(123)	111
Technology grants	(87)	(5)	(82)
Total	\$ 405	\$ (128)	\$ 533

The investment losses/earnings includes the actual earnings of the investment and the year over year change in the market value of the assets.

5. CAPITAL ASSETS

	Cost (000's)	2003 Accumulated Amortization (000's)	Net Book Value (000's)	2002 Net Book Value (000's)
Buildings	\$ 601	\$ 299	\$ 302	\$ 347
Leaseholds	3,916	2,086	1,830	1,648
Equipment	15,543	12,910	2,633	2,735
Automotive	148	146	2	0
Goodwill	35	35	0	0
Fermentation Facility	3,370	1,654	1,716	2,059
GenServe Equipment	563	225	338	394
Land	11	0	11	11
	\$ 24,187	\$ 17,355	\$ 6,832	\$ 7,194

Included in the cost and net book value of equipment is \$0 (2002 - \$305,660) of assets that were not amortized because they were not ready for use.

6. BANK INDEBTEDNESS

The Council was authorized by the Minister of Finance to establish a line of credit not to exceed \$5,100,000. There is an assignment of the accounts receivable as collateral for bank indebtedness. Interest is charged on the line of credit at the Bank of Montreal prime rate.



7. DEFERRED REVENUE – GENSERVE EQUIPMENT AND FERMENTATION FACILITY

The Council received contributions for certain capital assets, which it records as deferred revenue until such time as the related assets are put in use and amortized.

The total amount of deferred revenue is \$2,054,000 (2002 - \$2,453,000). During the year the Council recorded \$399,000 (GenServe \$56,000 and Fermentation \$343,000; 2002 - \$56,000 and \$343,000 respectively) as revenue based on the amortization of the related capital assets.

The long-term portion, \$1,655,000 (GenServe \$281,000 and Fermentation \$1,374,000; 2002 - \$337,000 and \$1,717,000 respectively), represents AFIF monies used to purchase capital assets that will be recognized as revenue at the same rate that the related assets are amortized.

8. ACCRUAL FOR DECOMMISSIONING

The Canadian Nuclear Safety Commission (CNSC) licensing conditions require that SLOWTOKE reactor owners have in place a decommissioning plan and a financial plan to cover the associated costs.

The Council estimates decommissioning costs will be in the range of \$1,540,000 to \$1,850,000 (2002 - \$900,000 to \$1,540,000).

In the Council's best estimate, the revised costs of decommissioning will be close to the high end of the range. The increase in the estimate is related to disposal costs. As at March 31, 2003, \$1,210,000 (2002 - \$1,062,000) was accrued for decommissioning costs. The current year amount of \$148,000 is included in Supplies and services expense.

9. TECMARK INC.

TecMark International Commercialization Inc. ("TecMark") was incorporated under *The Business Corporations Act* (Saskatchewan) on October 9, 1996, as a wholly owned subsidiary of the Council. The purpose of the Corporation is to assist in the commercialization of technology for inventors, entrepreneurs and partner institutions in the Province of Saskatchewan.

During the year TecMark purchased shares and warrants for \$50,000 in a private startup software company. The carrying value of the shares has been written down to \$0 at year end based on management's assessment of the market value of these shares.

Supplies and services includes \$194,985 (2002 - \$20,148) in connection with projects undertaken by TecMark.



10. JOINT VENTURE

Effective February 1, 1997, the Council entered into a 50 percent ownership joint venture with Bova-Can Parentage Testing Inc. The agreement was renewed June 1, 2001 for an additional five years. The agreement provides Bova-Can Laboratories with access to all animal lists and history, and the genotyping market. Upon termination of this agreement, SRC agrees to provide to each breed association, upon request, a copy of their complete database of genotypes, and access to, and control over, samples from the DNA bank. Bova-Can Parentage Testing Inc. will receive 50% of the net assets.

The Council's pro-rata share of its interest in the joint venture is as follows:

	2003 (000's)	2002 (000's)
Current Assets	\$ 216	\$ 155
Long-term Assets	24	45
Current Liabilities	27	27
Long-term Liabilities	6	6
Revenue	551	493
Expenses	510	483
Net Income	41	10
Cash flows resulting from operating activities	51	69
Cash flows resulting from investing activities	(9)	(9)

11. RELATED PARTY TRANSACTIONS

Included in these financial statements are transactions with various Saskatchewan Crown corporations, departments, agencies, boards and commissions related to the Council by virtue of common control by the Government of Saskatchewan and non-Crown corporations and enterprises subject to joint control or significant influence by the Government of Saskatchewan (collectively referred to as "related parties").

Routine operating transactions with related parties are settled at prevailing market prices under normal trade terms except for the following:

During the year, the Council paid \$3.8 million (2002 - \$3.8 million) to the Saskatchewan Property Management Corporation (SPMC) and Saskatchewan Opportunities Corporation (SOCO) for accommodation charges on buildings. At year-end, SRC has lease commitments with SOCO requiring minimum lease payment of:

2004	\$ 1.0 million
2005	1.0 million
2006	0.2 million



11. RELATED PARTY TRANSACTIONS (CONTINUED)

In 2003, the Council purchased supplies and services for \$1.1 million (2002 - \$1.7 million) from related parties.

During the year, the Council entered into fee-for-service contracts for \$1.6 million (2002 - \$1.8 million) with related parties, of which \$0.6 million remains in accounts receivable as at March 31, 2003. The Council has \$2.0 million (2002 - \$2.4 million) of deferred revenue from related parties as at March 31, 2003. Of the \$2.0 million, \$1.7 million (2002 - \$2.0 million) is related to the Fermentation Facility's funding from AFIF and \$0.3 million (2002 - \$0.4 million) is related to the GenServe funding from AFIF.

During the year, the Council provided general administrative services to the Saskatchewan Research Council Employees' Pension Plan without charge.

Other transactions with related parties and amounts due to/from them are described separately in the financial statements and the notes thereto.

12. COMPARISON OF PLANNED AND ACTUAL RESULTS

A comparison of actual to budgeted results for each line item on the income statement follows:

	Actual 2003 (000's)	Budget 2003 (000's)	Actual 2002 (000's)	Budget 2002 (000's)
Revenue:				
Contracts	\$ 13,338	\$ 15,206	\$ 11,746	\$ 13,065
Grant - General Revenue Fund	7,714	7,871	8,371	8,455
Grants - AFIF	399	399	399	398
Interest revenue	59	55	123	110
	21,510	23,531	20,639	22,028
Expenses:				
Salaries and benefits	10,472	10,653	10,076	10,154
Supplies and services	4,956	6,670	4,899	6,192
Accommodation charges	4,270	4,415	4,315	4,130
Amortization of capital assets	1,247	1,231	1,154	1,150
Amortization of AFIF funded assets	399	399	399	398
Change in restricted investment	128	0	(6)	0
	21,472	23,368	20,837	22,024
Net income/(loss) from operations	38	163	(198)	4
Defined benefit pension plan (expense) revenue	(540)	0	123	0
Net (loss)/income	\$ (502)	\$ 163	\$ (75)	\$ 4



13. EXPENSES BY PROGRAM

Program	Actual 2003 (000's)	Budget 2003 (000's)	Actual 2002 (000's)	Budget 2002 (000's)
Research & Technology	\$ 14,923	\$ 16,074	\$ 15,001	\$ 15,701
Laboratory Services	6,549	7,294	5,836	6,323
Total	\$ 21,472	\$ 23,368	\$ 20,837	\$ 22,024

Administrative services have been allocated to each program based on a percentage of labour. Space costs have been allocated to each program based on the approximate square footage occupied.

14. FINANCIAL INSTRUMENTS

The Council's significant financial instruments consist of cash, accounts receivable, accounts payable, bank indebtedness (line of credit) and the restricted investment.

Credit Risk:

The Council is exposed to credit risk from the potential default of customers. However, the majority of the Council's receivables are from related parties, other government agencies and reputable, longstanding corporate clients. Therefore the credit risk is minimal.

Fair Values:

The fair values of the cash, accounts receivable, accounts payable and bank indebtedness approximate their carrying value due to the short-term nature of these instruments. The fair value of the restricted investment is considered to be market value, the calculation of which is detailed in Note 2.

15. COMPARATIVE FIGURES

Certain of the 2002 financial statement balances have been reclassified to conform with presentation of the 2003 figures.



Smart Science Solutions

At SRC we value Integrity, Teamwork,
Performance Excellence, and Learning

INTEGRITY

- We treat people with respect, fairness, honesty, patience, understanding and trust.
- We are an equal opportunity employer and respect diversity.
- We are a responsible corporate citizen committed to the health and safety of people and the environment.
- We practice high ethical and professional standards.

TEAMWORK

- We are committed to achieving common goals through teamwork.
- We collaborate, listen and share information within SRC and with our partners.
- We consistently present a total corporate image.
- We participate actively within our networks to the benefit of clients, colleagues and the community.

PERFORMANCE EXCELLENCE

- We are a financially responsible organization.
- We lead by example. We are accountable for our actions, successes and failures.
- We establish and communicate clear expectations to staff, clients and partners.
- We recognize the accomplishments of our colleagues and of the organization as a whole.
- We actively seek new clients, and strive to retain existing clients.
- We demonstrate our commitment to clients by keeping lines of communication open, providing quality products and services and delivering on time and within budget.

LEARNING

- We facilitate and acknowledge personal and professional growth.
- We strive to achieve excellence through innovation and continuous improvement.
- We develop or acquire appropriate knowledge as needed to achieve the best solutions for our clients and partners.
- We learn from our successes and our failures.

SRC (Saskatoon)

125 - 15 Innovation Boulevard
Saskatoon, SK • Canada, S7N 2X8
Tel: (306) 933-5400 • Fax: (306) 933-7446

SRC (Regina)

6 Research Drive
Regina, SK • Canada, S4S 7J7
Tel: (306) 787-9400 • Fax: (306) 787-8811

(Toll-free outside Saskatchewan) 1-877-772-7227

Internet: www.src.sk.ca

Email: info@src.sk.ca



Saskatchewan Research Council

2003-2003 Annual Report

Supplementary Information
(unaudited)

Details of Revenue and Expense**Saskatchewan Research Council (Vote 23)**

(Subvote IR14)

Mission Statement

The Saskatchewan Research Council's (SRC) mission is to help the people of Saskatchewan strengthen the economy with quality jobs and a secure environment. We do it through research, development, and the transfer of innovative scientific and technological solutions, applications and services.

SRC creates wealth through the responsible application of science and technology to assist Saskatchewan industry to be globally competitive.

Year ended March 31**2003****Transfers**

All expenses paid from this vote were transfers to the Saskatchewan Research Council.

Saskatchewan Research Council

(Subvote IR14)

\$ 7,714,000

This program provides funding for the Saskatchewan Research Council:

Revenue:

Contracts	\$ 13,338,000
Grants - General Revenue Fund	7,714,000
Grants - Agri-Food Innovation Fund	399,000
Bank interest revenue	59,000
	21,510,000

Expense:

Personal services	9,368,311	
Travel	591,607	
Transfers	0	
Supplier payments	5,468,386	
Purchase of capital assets	1,316,181	
Difference between cash purchases and amortization of capital assets	(69,181)	
Amortization of Agri-Food Innovation Fund assets	399,000	
Change in restricted investment	128,000	
Accommodation charges	4,269,696	21,472,000
Net income from operations		38,000
Defined benefit pension plan expense		(540,000)
Net loss		(502,000)
Retained earnings - unappropriated, beginning of year		2,800,000
Change in appropriated amount during year		128,000
Retained earnings - unappropriated, end of year		\$ 2,426,000

Details of expenses**Personal Services**

Unaudited list of individuals who received payments for salaries, wages, honorariums, and severances, etc. which total \$2,500 or more. Includes all severance costs paid to individuals and bonuses payable as at March 31, 2003.

Anderson, S.	\$ 7,983	Fedyk, R.	26,060
Andres, K.	26,618	Fletcher, S.	33,891
Annesley, I.	66,898	Folk, B.	21,961
Apaya, J.	6,383	Freitag, N.	75,716
Archibald, P.	33,843	Gagnon, D.	21,877
Ashton, R.	38,941	Gartner, B.	49,783
Aviles, D.	10,679	George, C.	15,530
Babich, K.	42,563	Gerwing, V.	46,610
Baldoza, N.	17,730	Giesinger, J.	39,073
Beaulieu, C.	35,922	Gillies, R.	84,073
Beazley, D.	24,585	Gipman, K.	28,641
Begrand, R.	49,894	Godwin, B.	48,029
Bekkaoui, F.	67,491	Gorgchuck, L.	42,091
Bell, B.	32,634	Goudie, R.	9,790
Betteridge, D.	6,721	Green, M.	20,785
Birms, M.	4,494	Grier, D.	93,328
Blair, R.	8,730	Gutek, M.	22,896
Bouvier, R.	10,366	Hale, J.	9,448
Bradley, T.	12,721	Hamaberg, C.	11,758
Brown, G.	95,689	Hanna, R.	16,172
Brown, W.	48,828	Hannah, B.	30,261
Buhl, R.	26,344	Haskey, J.	14,855
Calloway, A.	5,263	Hebig, L.	32,660
Chan, K.	28,207	Helmke, K.	3,605
Chartrand, D.	10,136	Heskin, M.	34,654
Chorney, D.	51,322	Hildebrandt, K.	7,741
Chrusch, L.	51,068	Hill, K.	9,754
Chung, E.	65,267	Hill, S.	67,250
Clark, L.	4,091	Hollmann, U.	40,452
Clifford, J.	10,657	Holmes, A.	16,172
Cook, B.	7,824	Holsten, A.	71,869
Crawford, V.	31,373	Horn, E.	34,969
Crone, L.	24,287	Horychun, D.	19,914
Cutts, S.	32,958	Hrysak, L.	31,088
David, S.	3,079	Huang, S.	86,276
Derry-Mitchell, L.	31,376	Hudym, C.	32,487
Diakow, P.	28,859	Huntley, F.	37,073
Dick, R.	58,659	Hutchence, K.	69,981
Dickinson, J.	9,863	Isbister, D.	18,843
Doerksen, K.	47,074	Jackson, A.	47,619
Drader, G.	35,634	Jackson, C.	49,342
Drtina, R.	5,255	Jahren, R.	53,815
Dumont, R.	81,982	Jamieson, P.	76,726
Edmison, T.	2,925	Javillo, R.	8,549
Evans, J.	4,961	Jaworski, E.	51,355
Evans, V.	41,182	Johnston, M.	72,631
Exelby, R.	54,766	Jones, J.	55,638
Fahri, M.	45,495	Judd-Henrey, I.	62,283
Fan, H.	38,158	Kaminski, T.	64,541

Personal Services - Continued

Kennedy, R.	6,134	Nicolichuk, N.	51,586
Ketterer, T.	60,198	Niyazi, S.	29,536
Khosla, I.	30,989	Ohryn, K.	9,470
Kinar, J.	25,828	Olsen, F.	5,693
Knelson, H.	15,805	Osman, L.	24,546
Knops, C.	32,477	Owens, K.	95,774
Koroscil, T.	6,910	Pappas, E.	94,844
Kosteniuk, S.	29,854	Pendrigh, N.	4,204
Kostiuk, T.	32,104	Peng, X.	7,707
Kristoff, B.	83,911	Perron, T.	50,533
Kunstmann, L.	32,695	Peters, C.	32,331
Kunz, L.	25,216	Peters, J.	23,307
Kurucz, L.	52,887	Pillipow, E.	13,780
Lang, K.	48,410	Pinch, K.	6,793
Lawrence, W.	68,654	Plante, Y.	77,331
Lemmons, M.	6,978	Polanski, D.	25,978
Lennox, E.	38,256	Poleschuk, C.	3,854
Liebe, H.	69,353	Polishchuk, L.	39,849
Litzenberger, C.	49,829	Quirt, D.	58,228
Lung, B.	54,462	Radchenko, I.	39,475
Luzny, D.	3,011	Raine, D.	14,661
Lychak, J.	50,098	Ranganathan, R.	96,927
Ma, J.	33,003	Raven, J.	29,729
Maathuis, H.	84,112	Rees, B.	22,507
MacDermott, T.	44,485	Remenda, M.	10,075
MacDonald, T.	24,917	Renouf, G.	37,207
MacLeod, B.	3,569	Richardson, G.	7,233
MacLeod, C.	39,395	Rielkoff, W.	36,584
Macleod, H.	2,860	Riley, D.	33,781
Macza, M.	9,241	Rispler, K.	4,937
Madore, C.	48,234	Robinson, J.	65,269
Maki-Scott, P.	36,798	Rollins, M.	40,746
Makohon, J.	60,936	Rowe, T.	27,455
Maliko, K.	4,061	Savostianik, M.	54,622
Mamer, J.	25,934	Sayegh, S.	81,815
Mann, B.	39,026	Schergevitich, P.	53,921
Mann, K.	8,853	Schmid, B.	24,577
Marusiak, L.	21,569	Schneider, C.	13,773
Mazurkevich, T.	26,115	Schneider, L.	27,612
McCubbing, M.	8,153	Schneider, T.	14,084
McKibben, M.	50,774	Schnell, B.	42,612
McLean, G.	40,650	Schramm, L.	153,850
McMillan, M.	6,900	Schreiner, B.	93,155
Melville, G.	70,164	Seymour, B.	48,583
Meszaros, D.	12,340	Sherwood, P.	44,412
Meyers, S.	30,838	Shewchuk, S.	84,087
Micu, C.	21,323	Shi, R.	43,882
Millhouse, M.	41,075	Shutiak, G.	17,854
Mohamed, A.	28,593	Shuya, P.	23,146
Moody, M.	49,415	Siggelkow, P.	25,512
Moser, P.	42,686	Simpson, M.	59,326
Murray, C.	81,523	Simsic, C.	35,175
Nachilobe, P.	11,596	Sinclair, R.	25,351
Ng, J.	28,668	Siroski, T.	22,059

Personal Services - Continued

Smith, B.	47,136
Smith, H.	38,124
Smudy, C.	122,871
Snodgrass, L.	52,855
Snook, V.	38,924
Song, L.	14,390
Song, Y.	7,006
Sopher, L.	23,928
Sosulski, K.	219,211
Soveran, D.	84,100
Stachiw, D.	7,249
Stanek, B.	66,127
Stolmar, B.	29,162
Sulatisky, M.	88,428
Sun, R.	51,102
Tacik, B.	33,427
Tamosiunis, C.	29,517
Tang, J.	7,286
Tanner, K.	10,804
Tarasoff, L.	19,722
Thorpe, J.	73,503
Truong, D.	6,043
Ullah, B.	35,487
Usselman, H.	2,806
Villena, M.	18,231
Wallace, K.	72,255
Wang, Y.	30,576
Warkentin, T.	37,719
Weekes, M.	93,762
Wensley, T.	6,329
Wheaton, E.	72,559
Wheeler, B.	15,343
Wickenhauser, C.	11,066
Wilkie, S.	28,458
Wilms, J.	11,656
Wittrock, V.	49,522
Wolfe, T.	27,570
Wong, R.	76,395
Wright, D.	34,700
Wu, K.	28,961
Wutke, R.	5,828
Young, K.	77,868
Yuen, W.	75,342
Zerr, N.	27,286
Zhang, P.	56,134
Zimmer, J.	49,072
Zlipko, D.	47,910
Zuk, B.	72,561
Bova-Can adjustment	(180,756)
Under \$2,500	31,860
Total	<u>\$ 9,368,311</u>

Travel

Minister's Travel	\$ -
Other	601,278
Bova-Can adjustment	(9,672)
	<u>\$ 591,607</u>

Transfers

Unaudited list of transfers to external parties, excluding administrative expenditures which are included under personal services, travel and supplier payments.

\$ -

Supplier Payments

Unaudited list of payees who received \$20,000 or more for the provision of goods and services, including office supplies and contracts.

Ade & Company	\$ 21,004
Advanced Datasystems	200,321
Air Liquide Canada	100,921
AlSCO Uniform & Linen Service	22,864
Anachemia Science	60,372
Apex Instruments	28,482
Applied Biosystems	96,012
Bank of Montreal	20,178
Canada Trust	550,442
Canadian Light Source	21,185
Cleartech	84,638
Clevor Technologies	142,561
CMG (Computer Modelling Group)	42,000
Commonwealth Scientific & Industrial Research	135,000
EBSCO Canada	46,048
Enviro-Test Laboratories	42,304
Executive Source	43,949
Fisher Scientific	63,757
Gowlings	26,790
Hayter Drilling	39,165
Idexx Laboratories	28,105
Innovators in the Schools	25,000
Kevin Willems	20,829
Kirby Eades Gale Baker	21,187
MacPherson Leslie & Tyerman	23,128
Marsh Canada	114,116
Ocean Team Development	26,686
Perkin Elmer Canada	25,393
Prairie Graphics Industries	20,659
Receiver General For Canada	541,696
S.N. Kulshreshtha	27,700
Saskatchewan Blue Cross	269,851
Saskatchewan Property Management Corp	24,322
Saskatchewan Workers' Compensation Board	80,696

Supplier Payments - Continued

SaskEnergy	30,038
SaskPower	38,522
SaskTel	150,340
Seignior Chemical Products	20,904
Sigma Aldrich Canada	24,568
Thermo Instruments (Canada)	33,963
University of Regina	20,192
University of Saskatchewan	130,863
VWR International	62,245
Bova-Can adjustment	(288,437)
Under \$20,000	2,207,828
Total	<u>\$ 5,468,386</u>

Purchase of Capital Assets Payments

Unaudited list of payees who received \$20,000 or more for the purchase of capital assets.

Agilent Technologies Canada	\$ 91,204
DELL Computer Corporation	77,834
Fisher Scientific	26,399
IGC Magnet Business Group	79,911
Inter-City Mechanical	43,949
Jaron Services	31,660
Peacock	126,243
Saskatchewan Opportunities Corporation	466,822
SWECO Canada	41,214
Unylogix Technologies Inc	22,479
VWR International	23,705
WBM Office Systems	43,240
Bova-Can adjustment	(30,948)
Under \$20,000	272,468
Total	<u>\$ 1,316,181</u>

Accommodation charges

Unaudited list of payees who received \$20,000 or more for the purchase of facilities accommodation.

CIT Group	\$ 27,561
North Star Innovative Developments	99,169
Saskatchewan Property Management Corp	596,987
Saskatchewan Opportunities Corporation	3,477,109
Under \$20,000	68,871
	<u>\$ 4,269,696</u>